

EXHIBIT B

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

COGNIPOWER LLC

Plaintiff,

v.

FANTASIA TRADING, LLC D/B/A
ANKERDIRECT and
ANKER INNOVATIONS LIMITED

Defendant,

POWER INTEGRATIONS, INC.

Movant-Intervenor.

Civ. No. 19-2293-CFC-SRF

**FANTASIA TRADING, LLC D/B/A ANKERDIRECT'S
INVALIDITY CONTENTIONS**

Pursuant to paragraph 5 of the Court's Scheduling Order (D.I. 23), Fantasia Trading, LLC, d/b/a AnkerDirect ("Fantasia") provides the following disclosure of Invalidity Contentions to CogniPower, LLC ("CogniPower") regarding U.S. Reissue Patent No. RE47,031 ("the '031 patent") and U.S. Reissue Patent No. RE47,713 ("the '713 patent") (collectively, "the asserted patents"). These invalidity contentions are made only as to the asserted claims: 1, 2, 5, 6, 8, 10-12, and 18-64 of the '031 patent; 18-36, 38, and 40-61 of the '713 patent. Fantasia reserves the right to supplement or modify these invalidity contentions based on further discovery and in a manner consistent with the Federal Rules of Civil Procedure and the Court's rules, including the Court's Scheduling Order.

This initial identification of prior art and these contentions are based in part on CogniPower's August 31, 2020 disclosures pursuant to paragraph 3 of the Scheduling Order. In those disclosures, CogniPower alleged that the asserted claims of the asserted patents are entitled

to a priority date of November 19, 2012. More than six weeks after the deadline for disclosing the alleged priority date, and two days before the deadline for Fantasia's invalidity contentions, CogniPower served "corrected" contentions that purported to claim a new priority date of July 3, 2012, without explanation. CogniPower's untimely change on the eve of the invalidity contentions deadline has prejudiced Fantasia's ability to prepare its invalidity defense.

Fantasia reserves any and all rights to the extent that CogniPower purports to and is permitted to rely on a priority date prior to November 19, 2012. Fantasia also reserves the right to amend its invalidity contentions to substitute or add alternative invalidating references and evidence for any and all references and/or evidence that CogniPower attempts to swear behind. Despite CogniPower's untimely priority contention, the asserted claims are nevertheless invalid as anticipated under 35 U.S.C. § 102 and/or obvious under 35 U.S.C. § 103 based on numerous references and combinations, and they are also invalid under 35 U.S.C. § 112 as indefinite, lacking written description, and/or enablement.

A. Identification of Prior Art References

Fantasia lists in Tables 1 and 2 the prior art patents and publication now known to it and which it contends invalidates, alone or in combination, the asserted claims of the asserted patents. Fantasia reserves the right to rely on the earliest publication or priority dates to which each of the prior art references are entitled, including dates on which a claim of priority may be based for patent references that are any of a divisional, continuation, or continuation-in-part of an earlier filed patent application.

Table 1 – U.S. Patent References

Patent Number	Country of Origin	Date Filed	Date Issued/Published	BATES
Patent Application Publication No. 2011/0096573 A1 to Zhu (“Zhu”)	U.S.	Oct. 23, 2009	Apr. 28, 2011	PIC00000093-PIC00000109
Patent No. 7,773,392 to Matsumoto (“Matsumoto 392”)	U.S.	Mar. 16, 2007	Aug. 10, 2010	PIC00000409-PIC00000436
Patent No. 5,498,995 to Szepesi (“Szepesi”)	U.S.	Dec. 13, 1994	Mar. 12, 1996	PIC00000308-PIC00000324
Patent Application Publication No. 2011/0305043 A1 to Matsumoto (“Matsumoto 043”)	U.S.	Jun. 10, 2011	Dec. 15, 2011	PIC00000253-PIC00000283
Patent No. 5,973,945 to Balakrishnan (“Balakrishnan 945”)	U.S.	Jul. 1, 1998	Oct. 26, 1999	PIC00000047-PIC00000068
Patent No. 6,466,461 to Mao (“Mao”)	U.S.	Feb. 7, 2002	Oct. 15, 2002	PIC00000036-PIC00000046
Patent No. 5,418,410 to Tisinger (“Tisinger”)	U.S.	May 25, 1993	May 23, 1995	PIC00000437-PIC00000442
Patent No. 4,413,224 to Krupka (“Krupka”)	U.S.	May 18, 1982	Nov. 1, 1983	PIC00000510-PIC00000518
Patent No. 4,887,199 to Whittle (“Whittle”)	U.S.	Sep. 22, 1987	Dec. 12, 1989	PIC00000493-PIC00000509
Patent No. 6,301,135 to Mammano (“Mammano 135”)	U.S.	Dec. 30, 1999	Oct. 9, 2001	PIC00000520-PIC00000527
Patent No. 4,694,384 to Steigerwald (“Steigerwald”)	U.S.	Dec. 4, 1986	Sep. 15, 1987	PIC00000471-PIC00000477
Patent No. 5,841,641 To Faulk (“Faulk”)	U.S.	Dec. 31, 1996	Nov. 24, 1998	PIC00000191-PIC00000222

Table 2 – Publications

Title, Publication Information	Published	BATES
ST Microelectronics Application Note AN1283 – A Battery Charger Using TSM101 (“AN1283”)	May 2001	PIC00000486- PIC00000492
Mammano, Bob, Isolated power conversion: making the case for secondary-side control, EDN, (“Mammano EDN”)	June 2001	PIC00000529- PIC00000535
SG6840 Highly Integrated Green-Mode PWM Controller, Product Specification, System General (“SG6840”)	May 2004	PIC00000176- PIC00000190
ML4863 Highly Efficient Flyback Controller, Fairchild Semiconductor (“ML4863”)	July 2000	PIC00000166- PIC00000175
AN-918 Application Note, LM3001/LM3101 A 1 MHz Off-Line PWM Controller Chipset with Pulse Communication for Voltage-Current or Charge-Mode Control, National Semiconductor (“AN-918”)	January 1994	PIC00000478- PIC00000485
Ching-Jan Chen, et. al.: A Novel Ripple-Based Constant On-Time Control with Virtual Inductor Current Ripple for Buck Converter with Ceramic Output Capacitors, APEC (“Chen”)	2011	PIC00000030- PIC00000035
UCC2961/UCC3961 Advanced Primary-Side Startup Controller datasheet, Texas Instruments (“UCC3961”)	May 1999	PIC00000138- PIC00000154
Robert Erickson and Dragan Maksimovic, High Efficiency DC-DC Converters for Battery-Operated Systems with Energy Management, Worldwide Wireless Communications - Advances in the Information Industry Series - Barnes, Frank S., et al., eds. (“Erickson”)	1995	PIC00000243- PIC00000252

The prior art references identified above and cited in the attached claim charts may disclose the limitations of claims either explicitly or inherently and may be relied upon to show the state of the art in the relevant timeframes. All of these references qualify as prior art to the asserted patents.

Zhu qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Zhu is a published patent application, published April 28, 2011, more than one year before both asserted patents' earliest effective US filing date.

Matsumoto 392 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Matsumoto 392 is a patent that issued on August 10, 2010, more than one year before both asserted patents' earliest effective US filing date.

Szepesi qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Szepesi is a patent that issued on March 12, 1996, more than one year before both asserted patents' earliest effective US filing date.

Matsumoto 043 qualifies as prior art under 35 U.S.C. § 102(a) and/or (e). Specifically, Matsumoto 043 is a published patent application that published on December 15, 2011, before both asserted patents' earliest effective US filing date.

Balakrishnan 945 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Matsumoto 392 is a patent that issued on October 26, 1999, more than one year before both asserted patents' earliest effective US filing date.

Mao qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Mao is a patent that issued on October 15, 2002, more than one year before both asserted patents' earliest effective US filing date.

Tisinger qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Tisinger is a patent that issued on May 23, 1995, more than one year before both asserted patents' earliest effective US filing date.

Krupka qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Krupka is a patent that issued on November 1, 1993, more than one year before both asserted patents' earliest effective US filing date.

Whittle qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Whittle is a patent that issued on December 12, 1989, more than one year before both asserted patents' earliest effective US filing date.

Mammano 135 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Mammano 135 is a patent that issued on October 9, 2001, more than one year before both asserted patents' earliest effective US filing date.

Steigerwald qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Steigerwald is a patent that issued on September 15, 1987, more than one year before both asserted patents' earliest effective US filing date.

Faulk qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Faulk is a patent that issued on November 24, 1998, more than one year before both asserted patents' earliest effective US filing date.

AN1283 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, AN1283 is a printed publication that was published in May 2001, more than one year before both asserted patents' earliest effective US filing date.

Mammano EDN qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Mammano EDN is a printed publication that was published in June 2001, more than one year before both asserted patents' earliest effective US filing date.

SG6840 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, SG6840 is a printed publication that was published in May 2004, more than one year before both asserted patents' earliest effective US filing date.

ML4863 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, ML4863 is a printed publication that was published in July 2000, more than one year before both asserted patents' earliest effective US filing date.

Chen qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Chen is a printed publication that was published in 2011, more than one year before both asserted patents' earliest effective US filing date.

AN-918 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, AN-918 is a printed publication that was published in January 1994, more than one year before both asserted patents' earliest effective US filing date.

UCC3961 qualifies as prior art under 35 U.S.C. § 102(b). Specifically, UCC3961 is a printed publication that was published in May 1999, more than one year before both asserted patents' earliest effective US filing date.

Erickson qualifies as prior art under 35 U.S.C. § 102(b). Specifically, Erickson is a printed publication that was published in 1995, more than one year before both asserted patents' earliest effective US filing date.

While the aforementioned patents and publication references are prior art in their own right, upon information and belief, they also describe products that were in public use and/or on sale in this country prior to the filing of the asserted patent. The various datasheets and application notes describe actual products that were on sale and in public use well before the asserted patents' priority date. For example, SG6840, ML4863, and UCC3961 are datasheets describing chips that

were likewise on sale and in public use. In addition the application notes, such as AN1283 and AN-918 disclose the structure, function, and operation of the ST Micro TSM101 and National Semiconductor LM3001 Primary-Side PWM Driver integrated circuit device and LMM3101 Secondary-Side PWM Controller respectively, and which, upon information and belief, were on sale and in public use prior to the filing of the asserted patents; thus the sale and use of these chips are likewise invalidating prior art.

Power Integrations' prior invention of the "OmniSwitch" and "InnoSwitch" also qualifies as prior art under 35 U.S.C. §§ 102(a) and 102(g). Specifically, PI inventors conceived of an invalidating integrated circuit product no later than June 10, 2011, more than one year before both asserted patents' earliest effective US filing date, and PI further made the alleged invention of the asserted claims and did not abandon, suppress or conceal it. PI's inventors, Balu Balakrishnan, Mike Matthews, Alex Djenguerian, and Sheng Liu have personal knowledge about the conception and development of PI's invalidating invention. Exemplary documents evidencing PI's prior invalidating invention have been produced with production numbers PIC00000069-PIC00000092, PIC00000110-PIC00000137, PIC00000284-PIC00000307, PIC00000366-PIC00000408, PIC00000452-PIC00000470, PIC00000536-PIC00000560, and PIC00000561-PIC00001738.

B. Grounds for Invalidity under 35 U.S.C. §§ 102, 103

The asserted claims of the asserted patents are either invalid as anticipated pursuant to 35 U.S.C. § 102 or as obvious pursuant to 35 U.S.C. § 103 in view of the references cited above.

Fantasia attaches hereto, as Exhibits A.1-A.10, exemplary claim charts that identify how the prior art references anticipate and/or render obvious the asserted claims of the '031 patent.

By way of further disclosure, references and combinations that anticipate and/or render obvious claims 1, 2, 5, 6, 8, 10-12, and 18-64 of the '031 patent as follows.

As shown in the chart attached as Exhibit A.1, claims 1-2, 8, 10-12, 18, 25-27, 29-33, 38-40, 42-46, 49, 52-55, 57-61, and 64 are obvious over Zhu in view of Mao or AN1283; and claims 28, 34, 35, 41, 47, 48, 56, 62, and 63 are obvious over Zhu in view of Mao or AN1283 and further in view of Tisinger.

As shown in the chart attached as Exhibit A.2, claims 1-2, 6, 8, 10, 11-12, 18, 24-27, 29-30, 32-33, 36-40, 42-46, 49-55, 57-58, 60-61 are obvious over Matsumoto 392 in view of Mao or AN1283; claims 5, 19-23, are obvious over Matsumoto 392 in view of Mao or AN1283 and further in view of Krupka; claims 28, 31, 34, 35, 41, 47, 48, 56, 59, 62, and 63 are obvious over Matsumoto 392 in view of Mao or AN1283 and further in view of Tisinger; and claim 64 is anticipated by Matsumoto 392.

As shown in the chart attached as Exhibit A.3, claims 1-2, 5-6, 8, 10, 18-26, 28-33, 36-39, 41-46, 49-54, 56-61 are obvious over Szepesi in view of Mao or AN1283; and claims 11-12, and 64 are obvious over Szepesi in combination with Mao or AN1283 and also in combination with UCC3961.

As shown in the chart attached as Exhibit A.4, claims 1-2, 6, 8, 10-12, 18-21, 23-26, 30-33, 36-38, 43-46, 49, 51-54, 58-61 are anticipated by Matsumoto 043 and, alternatively, are obvious over Matsumoto 043 in view of Mao or AN1283; claims 5 and 50 are obvious over Matsumoto 043 in view of the knowledge of a POSITA, and alternatively, is obvious over Matsumoto 043 in view of Mao or AN1283; claims 28, 41, and 56 are obvious over Matsumoto 043 (or Matsumoto 043 in combination with Mao or AN1283) in view of Tisinger; and claim 64 is anticipated by Matsumoto 043.

As shown in the chart attached as Exhibit A.5, claims 1, 2, 8, 10-12, 18, 25, 27-31, 33, 37, 39-44, 46, 49, 52, 54-59, and 61 are obvious over Balakrishnan 945 in combination with Mao or AN1283; and claim 64 as anticipated by Balakrishnan 945.

As shown in the chart attached as Exhibit A.6, claims 1-2, 5-6, 8, 19-23, 25-26, 36-39, 41-46, 49-50, 54 are obvious over Mammano EDN/UCC3961 in combination with SG6840 or ML4863 or Krupka and also in combination with Mao or AN1283; claims 27, 34-35, 40, 47, 48, 55, and 62-63 are obvious over Mammano EDN/UCC3961 in combination with ML4863 or Krupka and also in combination with Mao or AN1283; claims 28 and 41 are obvious over Mammano EDN/UCC3961 in combination with SG6840 or ML4863 and also in combination with Mao or AN1283; claims 10-12, 18, 24, 29-33, 51-53, 56-61 are obvious over Mammano EDN/UCC3961 in combination with Mao or AN1283; and claim 64 is obvious over Mammano EDN/UCC3961.

As shown in the chart attached as Exhibit A.7, claims 1-2, 5-6, 8, 18, 23-47, 49-50, 54-55, and 62-63 are obvious over AN-918 or UCC3961 in combination with Chen, ML4863 or Krupka and also in combination with Mao or AN1283; claims 19-22 are obvious over AN-918 or UCC3961 in combination with Krupka and also in combination with Mao or AN1283; claims 10-12, 51-53, and 56-61 are obvious over AN-918 or UCC3961 in combination with Mao or AN1283; and claim 64 is anticipated by UCC3961.

As shown in the chart attached as Exhibit A.8, claims 1-2, 6, 8, 11-12, 25, 27, 36-40, 42-46, and 54-55, are obvious over Mammano 135 in combination with Whittle and Steigerwald; claims 10, 18, 24, 29-33, 49, 51-53, and 57-61 are obvious over Mammano 135 in combination with Whittle and claim 64 is obvious over Mammano 135 in combination with Steigerwald.

As shown in the chart attached as Exhibit A.9, claims 1, 6, 8, 10, 18, 24-25, 29-32, 36-39, 42-45, 51-54, and 57-60 are anticipated by Faulk and, alternatively, are obvious over Faulk in view of Mao or AN1283; and claims 28, 41, and 56 are obvious over Faulk (or Faulk in combination with Mao or AN1283) in combination with Tisinger

As shown in the HIGHLY CONFIDENTIAL chart attached as Exhibit A.10, claims 1-2, 5-6, 8, 10-12, 18-64 are anticipated by Power Integrations' prior invention of OmniSwitch, or in the alternative, by PI's invention of its original InnoSwitch product.

Fantasia attaches hereto, as Exhibits B.1-B.10, exemplary claim charts that identify how the prior art references anticipate and/or render obvious the asserted claims of the '713 patent.

As shown in the chart attached as Exhibit B.1, claims 18-23, 25, 29-31, 34-36, 41-43, 45-52 are obvious over Zhu in view of Mao or AN1283; and claim 44 is obvious over Zhu in view of Mao or AN1283 and further in view of Tisinger.

As shown in the chart attached as Exhibit B.2, claims 18-25, 26-30, 33-36, 38, 40-43, 45, 47-56, 58, and 60-61 are obvious over Matsumoto 392 in view of Mao or AN1283; claims 31-32 are obvious over Matsumoto 392 in view of Mao or AN1283 and further in view of Krupka; claims 44, 57 are obvious over Matsumoto 392 in view of Mao or AN1283 and further in view of Tisinger; and claims 46 and 59 are obvious over Matsumoto 392 in view of Mao or AN1283 and further in view of Krupka and further in view of Szepesi or Zhu.

As shown in the chart attached as Exhibit B.3, claims 18-28, 30-33, 35-36, 38, 40-42, and 44-51 are obvious over Szepesi in view of Mao or AN1283.

As shown in the chart attached as Exhibit B.4, claims 18-21, 24-29, 31, 35-36, 38, 41, 44, and 46-51 obvious over Matsumoto 043 in view of the knowledge of a POSITA and in combination with Mao or AN1283

As shown in the chart attached as Exhibit B.5, claims 18-24, 29-30, 33-36, 40, 42-45, and 47-51 are obvious over Balakrishnan 945 in combination with Mao or AN1283.

As shown in the chart attached as Exhibit B.6, claims 18-33, 35-36, 38, 40-42, and 44-52 are obvious over Mammano EDN/UCC3961 in combination with SG6840 or ML4863 or Krupka and also in combination with Mao or AN1283; and claims 34, 43, 53-61 are obvious over Mammano EDN/UCC3961 in combination with ML4863 or Krupka and also in combination with Mao or AN1283.

As shown in the chart attached as Exhibit B.7, claims 18-36, 38, 40-52 are obvious over AN-918 or UCC3961 in combination with Chen, ML4863 or Krupka and also in combination with Mao or AN1283; and claims 53-61 are obvious over AN-918 or UCC3961 in combination with ML4863 or Krupka and also in combination with Mao or AN1283.

As shown in the chart attached as Exhibit B.8, claims 18-19, 22-25, 29-31, 33-36, 38, 40-43, and 45-52, are obvious over Mammano 135 in combination with Whittle and Steigerwald.

As shown in the chart attached as Exhibit B.9, claims 18-19, 22-25, 30-31, 33, 35-36, 38, 40-42, and 45-50 are anticipated by Faulk and, alternatively, are obvious over Faulk in view of Mao or AN1283; claims 20-21 are obvious over Faulk in view of Mao or AN1283; and claims 44 is obvious over Faulk (or Faulk in combination with Mao or AN1283) with Tisinger.

As shown in the HIGHLY CONFIDENTIAL chart attached as Exhibit B.10, claims 18-36, 38, and 40-61 are anticipated by Power Integrations' prior invention of OmniSwitch, or in the alternative, by PI's invention of its original InnoSwitch product.

C. Grounds for Invalidity Under 35 U.S.C. §§ 101, 112

Fantasia does not presently assert that the asserted claims of the asserted patents are invalid under 35 U.S.C. § 101 but reserves the right to supplement these contentions as necessary or appropriate.

The asserted claims of the '031 patent are invalid under 35 U.S.C. § 112 for at least the reasons sets forth below:

Claims 1, 10, and 64 are invalid as indefinite, lacking written description, and/or enablement in view of the language requiring one element to be “arranged in circuit” with another element.

Claims 18, 24, 35, 36, 48, 51, and 63 are invalid as indefinite, lacking written description, and/or enablement in view of the language requiring one element to be “connected in circuit” with another element.

Claims 32, 34, 45, 47, 60, and 62 are invalid as indefinite, lacking written description, and/or enablement in view of the language requiring “a leading edge of a single demand pulse will turn on the switch independent of other demand pulses.”

Claims 18 and its dependent claims 19-35 are invalid as indefinite because they claim both an apparatus and a method of use of that apparatus. Claim 18 recites both an apparatus and a method for using that apparatus that requires the user to use various apparatus elements in a certain way, including “galvanic isolation circuitry,” and other specific circuitry. The dependent claims are indefinite for the same reason and also because they recite additional apparatus elements that the user must also use in certain ways, including an “oscillator,” “logic circuitry,” “a demand pulse generator,” other “dedicated circuitry,” and the like.

Claim 48 is invalid as indefinite, lacking written description, and/or enablement in view of the claim mixing apparatus and method limitations.

The asserted claims of the '713 patent are invalid under 35 U.S.C. § 112 for at least the reasons sets forth below:

Dependent claims 23, and 50 are invalid as indefinite, lacking written description and/or enablement because they do not appear to add any meaningful limitations to the claims from which they depend.

Claim 25 is invalid as indefinite, lacking written description, and/or enablement in view of the language requiring “the primary-side switch turning on is in response to detecting the leading edge of the particular demand pulse independent of any other demand pulses conveyed from the secondary side to the primary side and independent of any other pulse edges appearing on the primary side.”

Claims 52, and its dependent claims, are invalid as indefinite, lacking written description and/or enablement in view of the language requiring redundant limitations related to regulating the output port to “[by driving/to have] the feedback signal match the reference signal.”

D. Document Production Accompanying Disclosure

Accompanying this statement, Fantasia is producing relevant, non-privileged documents required under paragraph 6 of the Scheduling Order [D.I. 23]. Fantasia’s production of documents pursuant to the Scheduling Order should not be considered an admission that such documents relate to information or products that fall within the scope of the asserted claims of the asserted patents. Fantasia reserves the right to supplement its production as deemed appropriate and necessary in the future.

Dated: October 15, 2020

FISH & RICHARDSON P.C.

By: /s/ Warren K. Mabey, Jr.

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